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10/611,746	06/30/2003	Larry Ervin Rising		1349
7590	08/09/2005		EXAMINER	
LARRY E. RISING 3820 FIRESTONE RD KERNERSVILLE, NC 27284			HU, HENRY S	
			ART UNIT	PAPER NUMBER
			1713	

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/611,746	RISING, LARRY ERVIN
Examiner	Art Unit	
Henry S. Hu	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
  - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
  - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
  - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1)  Responsive to communication(s) filed on Amendment of June 8, 2005.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4)  Claim(s) 1 and 16-24 is/are pending in the application.  
4a) Of the above claim(s) 17-20 and 24 is/are withdrawn from consideration.

5)  Claim(s) \_\_\_\_\_ is/are allowed.

6)  Claim(s) 1,16 and 21-23 is/are rejected.

7)  Claim(s) 1,16,22 and 23 is/are objected to.

8)  Claim(s) 1 and 16-24 are subject to restriction and/or election requirement.

## Application Papers

- 9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
    Paper No(s)/Mail Date \_\_\_\_\_  
  
4)  Interview Summary (PTO-413)  
    Paper No(s)/Mail Date. \_\_\_\_\_.  
5)  Notice of Informal Patent Application (PTO-152)  
6)  Other: \_\_\_\_\_

## DETAILED ACTION

1. This Office Action is in response to Amendment filed on June 8, 2005. **Claim 1 was amended, Claims 2-15 were cancelled, while new Claims 16-24 were added.** To be more specific, parent **Claim 1** was amended to overcome both claim objection and 112-2<sup>nd</sup> claim rejection as suggested by the Examiner, while new Claims 16-24 were rewritten from original Claims 2-15 as well as from the support in specification. In view of above amendment, the examiner thereby withdraws the specification objection, claim objections, and 112-2<sup>nd</sup> claim rejections.

2. Newly added parent **Claim 17** (with its set of dependent Claims 18-20) and parent **Claim 24** are each directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

In comparison with amended parent **Claim 1** (with its set of dependent Claims 16 and 21-23) (Group I), newly submitted parent **Claims 17 and 24** are patentably "independent or distinct" from the invention originally claimed. To be more specific, parent 1 is directed to a chemical formulation comprising NPB and fluorocarbon, parent Claim 17 is directed to a different chemical formulation comprising NPB, a coating component and a crosslinker, extender or other material, while parent Claim 24 is directed to a different composition

comprising a stabilized NPB to dissolve or remove contaminants from textile or non-woven substrates. They are therefore related to three different compositions.

Since the Applicants have received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. It is noted that the limitation of **Group I is more closely related to the claimed limitation originally disclosed.** Accordingly, **Claims 1 and 16-24** are pending now, while **Group II with Claims 17-20** as well as **Group III with Claim 24** are withdrawn from consideration by the Examiner as each being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

***Response to Argument***

3. Applicant's argument filed on June 8, 2005 has been fully considered but they are not persuasive. The focal arguments related to the patentability will be addressed as follows: In view of the Applicants' argument on pages 3-5 of Remarks, the previous 102 rejection over Jackson et al. for Claim 1 is rewritten into 103 rejection with Flynn for Claims 1 and 21 since the fluorocarbons are limited to fluorinated monomers and polymers; the previous 102 rejection over Flynn for Claim 1 is sustained for Claims 1 and 21; the previous 103 rejection by Flynn/Aharoni for Claim 2 is sustained for Claim 23; while new dependent **Claims 16 and 22 are rejected with 112-2<sup>nd</sup> rejection but are treated with no merit for other rejection.**

## DETAILED ACTION

### *Claim Objections*

4. Claims 1, 16 and 22-23 are objected to because of the following informalities:

(A) On **Claim 1** at lines 7-8, the language of “perfluoroalkylethyl acrylates; perfluoroalkyl methacrylates; mixture of the same” may be changed to “**polymers with** perfluoroalkylethyl acrylates, perfluoroalkyl methacrylates and mixtures”. It seems only the monomer or its mixture is used. The Applicants need to confirm the use of either polymer or monomer in this regard.

(B) The writings of **Claims 1, 16, 22 and 23** are improper in many way. For instance, the Markush language as “**is selected from the group consisting of**” should be used to replace “is selected from the group”; only one period mark as “.” can be used in one claim (see Claim 23); the language of “such as” in the claim is improper (see Claims 16 and 22); and all the species in Markush language can be only separated with “,” mark and not by “;” mark (see Claims 1 and 22). The Applicants need to refer to MPEOP for proper writing on the claims.

(C) On **Claim 23** at line 3, the phrase of “Component (C) is” is improper and should be changed to “The composition further comprises component (C), which is” according to MPEP.

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 16 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

On **Claim 16** at line 1 and **Claim 22** at line 1, same problems exist on the use of component (B). It is noted that its parent Claim 1 is directed to a chemical formulation comprising NPB and fluorocarbon (the component B). It is also noted that both Claims 16 and 22 are dependent from parent Claim 1. However, the **component B in dependent Claims 16 and 22** is not related to fluorocarbons as the component (B) in parent Claim 1. **Claims 16 and 22 are thereby treated with no merit due to inconsistent component (B).**

*Claim Rejections - 35 USC § 102*

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. *The limitation of parent Claim 1 in present invention relates to chemical formulations comprising component (A) NPB (n-propyl bromide) as non-aqueous carrier mediums to apply component (B) fluorocarbons to textile and non-woven substrates, whereby the NPB is evaporated leaving the remaining fluorocarbon on the substrate. The said fluorocarbon being selected from the group as specified and the amount of said fluorocarbon is 0.002-4.0 wt % of the substrate. See other limitations of its dependent Claims 16 and 22.*

9. Claims 1 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Flynn et al. (US 5,827,812) for the reasons set forth in **paragraph 11 of office action dated 3-21-2005 as well as the discussion below.**

10. Claims 1 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (US 6,342,471 B1, which is equivalent to GB 2,359,086 A) in view of Flynn et al. (US 5,827,812) for the reasons set forth in **paragraphs 10-11 of office action dated 3-21-2005 as well as the discussion below.**

11. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn et al. (US 5,827,812) in view of Aharoni et al. (US 5,139,879) for the reasons set forth in **paragraphs 13-14 of office action dated 3-21-2005 as well as the discussion below.**

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Jackson et al. (US 6,342,471 B1, which is equivalent to GB 2,359,086 A) in view of Flynn et al. (US 5,827,812) as applied to Claims 1 and 21, and further in view of Aharoni et al. (US 5,139,879) for the reasons set forth in **paragraphs 13-14 of office action dated 3-21-2005 as well as the discussion below.**

13. **Applicants:** the Applicant has claimed in parent Claim 1 an unexpected way of obtaining a chemical formulation comprising component (A) NPB (n-propyl bromide) as non-aqueous carrier mediums to apply component (B) fluorocarbons to textile and non-woven

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substrates, wherein said fluorocarbon being in the form of monomers and/or polymers as specified and the amount of said fluorocarbon is 0.002-4.0 wt % of the substrate.

With respect to 102 rejection by Jackson, the Applicants allege that Jackson only uses a composition of NPB and a HFC liquefied gas such as HFC-134a. No claimed fluorinated monomer and/or polymer are used in the composition. The Applicants further allege that Jackson's composition is used for aerosol cleaning of metal component.

With respect to 102 rejection by Flynn, the Applicants allege that Flynn's azeotrope is a distillate fraction containing low concentration of NPB (less than 25 wt%), while NPB used in present application is always in the range of 70-92 wt %.

With respect to 103 rejection by Flynn or Jackson, the Applicants allege that the cancellation of Claim 2 would make the rejection moot.

14. **Examiner:** In view of the Applicants' amendment of parent Claim 1 as "said fluorocarbon being in the form of monomers and/or polymers as specified and the amount of said fluorocarbon is 0.002-4.0 wt % of the substrate", the rejections are changed or modified as: (A) the previous 102 rejection over Jackson et al. for Claim 1 is rewritten into 103 rejection with Flynn for Claims 1 and 21 since the fluorocarbons are limited to fluorinated monomers and polymers; (B) the previous 102 rejection over Flynn for Claim 1 is sustained for Claims 1 and

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21; (C) the previous 103 rejection by Flynn/Aharoni for Claim 2 is sustained for Claim 23; and

(D) new dependent **Claims 16 and 22 are treated with no merit.**

The key point is that **Flynn** has already disclosed the preparation of an azeotrope-like solvent composition, to be useful for **coating/deposition applications**, to dissolve the coating materials such as perfluoropolyether lubricants and fluoropolymers and then thereby enable a deposition or coating onto a substrate (column 2, line 36-46; column 3, line 44-49; column 7, lines 18-21 and 49-54). One formulation for such an azeotrope-like solvent composition may comprise: **1-bromopropane**, which is structurally **exactly** equivalent to the claimed **n-propyl bromide** (NPB). The fluoropolymers including **homo- and/or co-polymers of tetrafluoroethylene (TFE)** useful for coating can be readily found on column 3, line 48; column 7, lines 13-27, 49-54 and 61-67. Such a PTFE fluoropolymer is reading on the fluorocarbon limitation of Claim 1 at line 6. Additionally, the amount of such a fluoropolymer in the azeotrope-like composition can be 0.25-1.0 wt% according to Flynn's statement at column 3, line 45-52.

15. With respect to **103 rejection by Jackson/Flynn for Claims 1 and 21**, Jackson has already disclosed the preparation of a propellant-rich aerosol cleaner for use with electrical circuit boards and electrical connector components. One aerosol formulation may comprise **n-propyl bromide** (NPB) and a HFC liquefied gas such as **tetrafluoroethane** (HFC-134a). In a close examination, Jackson is silent about adding the claimed fluorocarbons including fluorinated monomer and/or polymer. Flynn has taught such an addition of fluoropolymer (see above discussion).

In light of the fact that Jackson and Flynn are preparing the same or similar type of spray solution comprising NPB as solvent, one having ordinary skill in the art would therefore find it obvious to modify Jackson's composition by adding fluoropolymer such as homo- and/or co-polymers of tetrafluoro-ethylene (TFE) as taught by Flynn. By doing so, one would expect to obtain a fluoropolymer-containing coating on the substrate since NPB is able to effectively dissolve such a coating material. Thereby a better and more diversified product can be obtained.

16. With respect to **two 103 rejections by Flynn/Jackson in view of Aharoni for Claim 23**, same rationale for the rejection of original Claim 2 with teaching from Aharoni can be applied since said **fluorocarbon component (B) is still related to a perfluoroalkyl group-containing (meth)acrylate in the form of monomer and/or polymer**. With respect to the use of a crosslinker as component (C), Flynn has disclosed anything used in the coating as known in the art can be added as long as it is compatible (column 7, line 61-65). Certainly the use of such a crosslinker would enhance the physical performance and rigidity.

Finally, the Applicants have alleged that some excellent results such as "NPB in the amount of 70-92 wt % can effectively dissolve such a fluoropolymer and the resultant composition can be foamed and applied directly at less than 10% wet pick up" can be found on page 5 of Remarks as well as in specification. The key point is that it is not included as limitation of parent Claim 1 at all. It is noted that the examiner cannot and would not read

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specification into the claim according to MPEP. It is also noted that excellent result is not necessarily to be an unexpected result due to inherent nature. Unexpected results “cannot” form a basis for rebutting an anticipation rejection under 35 USC “102” according to MPEP. In re Malgari, 499 F.2d 1297, 1302, 182 USPQ 549.

### ***Conclusion***

17. With respect to the amendment of **Claims 1, 21 and 23**, all directly relate to original Claims 1-2 and have support in the specification and claims originally filed, they **still carry the same scope of original limitations**. Dependent **Claims 16 and 22 are rejected with 112-2<sup>nd</sup> rejection but are treated with no merit for other rejection**. Therefore, the same rational recited in the rejection of original Claims 1-2 can be applied to reject Claims 1, 21 and 23.

18. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

19. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Dr. Henry S. Hu whose telephone number is **(571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all regular communications. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <<http://pair-direct.uspto.gov>>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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Patent Examiner, art unit 1713, USPTO

August 2, 2005



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